

SEQUENCE LISTING

<110> Duke University

Lin, Haifan

<120> PURIFIED AND ISOLATED *piwi* FAMILY GENES AND GENE
PRODUCTS AND METHODS EMPLOYING SAME

<130> Attorney Docket No. 180-104 PCT

<140>

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<150> 60/110,091

<151> 1998-12-04

<160> 21

<170> PatentIn Ver. 2.1

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20250424

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Ser Gly Ser Leu Lys Gln Leu Phe Glu Phe Glu Val Lys Asp Ile Ile
690 695 700

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725 730 735

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Leu	Asp	His 100	Val	Lys	Glu	Ser	Lys	Thr 105	Gly	Ser	Ser	Gly	Ile 110	Ile	Val
Arg	Leu	Ser 115	Thr	Asn	His	Phe	Arg	Leu	Thr	Ser	Arg	Pro 125	Gln	Trp	Ala
Leu 130	Tyr	Gln	Tyr	His	Ile	Asp 135	Tyr	Asn	Pro	Leu	Met 140	Glu	Ala	Arg	Arg
Leu 145	Arg	Ser	Ala	Leu	Leu 150	Phe	Gln	His	Glu	Asp 155	Leu	Ile	Gly	Lys	Cys 160
His	Ala	Phe	Asp 165	Gly	Thr	Ile	Leu	Phe	Leu 170	Pro	Lys	Arg	Leu	Gln 175	Gln
Lys	Val	Thr	Glu 180	Val	Phe	Ser	Lys	Thr 185	Arg	Asn	Gly	Glu	Asp 190	Val	Arg
Ile	Thr	Ile 195	Thr	Leu	Thr	Asn	Glu 200	Leu	Pro	Pro	Thr	Ser 205	Pro	Thr	Cys

Leu 210	Gln	Phe	Tyr	Asn	Ile	Ile 215	Phe	Arg	Arg	Leu	Leu 220	Lys	Ile	Met	Asn
Leu 225	Gln	Gln	Ile	Gly	Arg 230	Asn	Tyr	Tyr	Asn	Pro 235	Asn	Asp	Pro	Ile	Asp 240
Ile	Pro	Ser	His	Arg 245	Leu	Val	Ile	Trp	Pro 250	Gly	Phe	Thr	Thr	Ser 255	Ile
Leu	Gln	Tyr	Glu 260	Asn	Ser	Ile	Met	Leu 265	Cys	Thr	Asp	Val	Ser 270	His	Lys
Val	Leu	Arg 275	Ser	Glu	Thr	Val	Leu 280	Asp	Phe	Met	Phe	Asn 285	Phe	Tyr	His
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Gly 305	Leu	Val	Val	Leu	Thr 310	Lys	Tyr	Asn	Ile	Lys 315	Thr	Tyr	Arg	Val	Asp 320
Asp	Ile	Asp	Trp	Asp 325	Gln	Asn	Pro	Lys	Ser 330	Thr	Phe	Lys	Lys	Ala 335	Asp
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Glu	Ile	Thr 355	Asp	Leu	Lys	Gln	Pro 360	Val	Leu	Val	Ser	Gln 365	Pro	Lys	Arg
Arg	Arg 370	Gly	Pro	Gly	Gly	Thr 375	Leu	Pro	Gly	Pro	Ala 380	Met	Leu	Ile	Pro
Glu 385	Leu	Cys	Tyr	Leu	Thr 390	Gly	Leu	Thr	Asp	Lys 395	Met	Arg	Asn	Asp	Phe 400
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Leu 450	Leu	Ser	Phe	Ser	Gly	Arg 455	Ile	Leu	Gln	Thr	Glu 460	Lys	Ile	His	Gln
Gly 465	Gly	Lys	Thr	Phe	Asp 470	Tyr	Asn	Pro	Gln	Phe 475	Ala	Asp	Trp	Ser	Lys 480
Glu	Thr	Arg	Gly	Ala 485	Pro	Leu	Ile	Ser	Val 490	Lys	Pro	Leu	Asp	Asn 495	Trp
Leu	Leu	Ile	Tyr 500	Thr	Arg	Arg	Asn	Tyr 505	Glu	Ala	Ala	Asn	Ser 510	Leu	Ile
Gln	Asn	Leu 515	Phe	Lys	Val	Thr	Pro 520	Ala	Met	Gly	Met	Gln 525	Met	Arg	Lys

Ala 530	Ile	Met	Ile	Glu	Val	Asp 535	Asp	Arg	Thr	Glu	Ala 540	Tyr	Leu	Arg	Val
Leu 545	Gln	Gln	Lys	Val	Thr 550	Ala	Asp	Thr	Gln	Ile 555	Val	Val	Cys	Leu	Leu 560
Ser	Ser	Asn	Arg	Lys 565	Asp	Lys	Tyr	Asp	Ala 570	Ile	Lys	Lys	Tyr	Leu 575	Cys
Thr	Asp	Cys	Pro 580	Thr	Pro	Ser	Gln	Cys 585	Val	Val	Ala	Arg	Thr 590	Leu	Gly
Lys	Gln	Gln	Thr 595	Val	Met	Ala	Ile 600	Ala	Thr	Lys	Ile	Ala 605	Leu	Gln	Met
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Leu 625	Val	Met	Ile	Val	Gly 630	Ile	Asp	Cys	Tyr	His 635	Asp	Met	Thr	Ala	Gly 640
Arg	Arg	Ser	Ile	Ala 645	Gly	Phe	Val	Ala	Ser 650	Ile	Asn	Glu	Gly	Met 655	Thr
Arg	Trp	Phe	Ser 660	Arg	Cys	Ile	Phe	Gln 665	Asp	Arg	Gly	Gln	Glu 670	Leu	Val
Asp	Gly	Leu 675	Lys	Val	Cys	Leu	Gln 680	Ala	Ala	Leu	Arg	Ala 685	Trp	Asn	Ser
Cys 690	Asn	Glu	Tyr	Met	Pro	Ser 695	Arg	Ile	Ile	Val	Tyr 700	Arg	Asp	Gly	Val
Gly 705	Asp	Gly	Gln	Leu	Lys 710	Thr	Leu	Val	Asn	Tyr 715	Glu	Val	Pro	Gln	Phe 720
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Arg 785	Ser	Gly	Ser	Val	Ser 790	Pro	Thr	His	Tyr	Asn 795	Val	Ile	Tyr	Asp	Asn 800
Ser	Gly	Leu	Lys 805	Pro	Asp	His	Ile	Gln	Arg 810	Leu	Thr	Tyr	Lys	Leu 815	Cys
His	Ile	Tyr	Tyr 820	Asn	Trp	Pro	Gly	Val 825	Ile	Arg	Val	Pro	Ala 830	Pro	Cys
Gln	Tyr	Ala 835	His	Lys	Leu	Ala	Phe 840	Leu	Val	Gly	Gln	Ser 845	Ile	His	Arg

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Oligonucleotide Primer

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42

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<213> Artificial Sequence

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<212> DNA

<213> Artificial Sequence

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthesized
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24

<211> 23

<213> Artificial Sequence

<223> Description of Artificial Sequence: Synthesized
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Oligonucleotide Primer

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24

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4